

## DETAILED ACTION

### *Claim Objections*

1. Claim 27 is objected to because of the following informalities: the phrase "P/L" shall be replaced by the unabbreviated terms. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-3 and 9-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yvin et al. (WO 01/43556) with evidence by Yvin et al. (US 6,915,969) in view of McCabe, Jr. (US 4,549,477). Yvin et al. (US 6,915,969) is a U.S. national stage patent for Yvin et al. (WO 01/43556) published in French. Yvin et al. (US 6,915,969) is cited as being the English equivalent of Yvin et al. (WO 01/43556).

Yvin ('969) teaches a method, and product made thereby, for treating an unground plant material which comprises the steps of a) prehumidification of the plant material by the addition of a volume of water to increase the moisture from about 13% to about 18%; b) a rest phase for the humidified plant material from between 8 and 35 hours; and c) exposure of the plant material to dry ozone and moisture simultaneously from 80 to 160 g/m<sup>3</sup> and pressure of 200 to 500 mbar and grinding the wheat into flour (See FIG-2 and col. 3, I. 39 to col. 6, I. 38 and col. 10, II. 1-6 where the wheat is contacted with water, allowed to rest, contacted with dry ozone and moisture and

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*subsequently ground into flour. Examiner's Note: the examiner interprets the product claims as being nominal, however, if Applicant introduces claims with substantial product limitations then such claims will be subject to a restriction requirement.*),

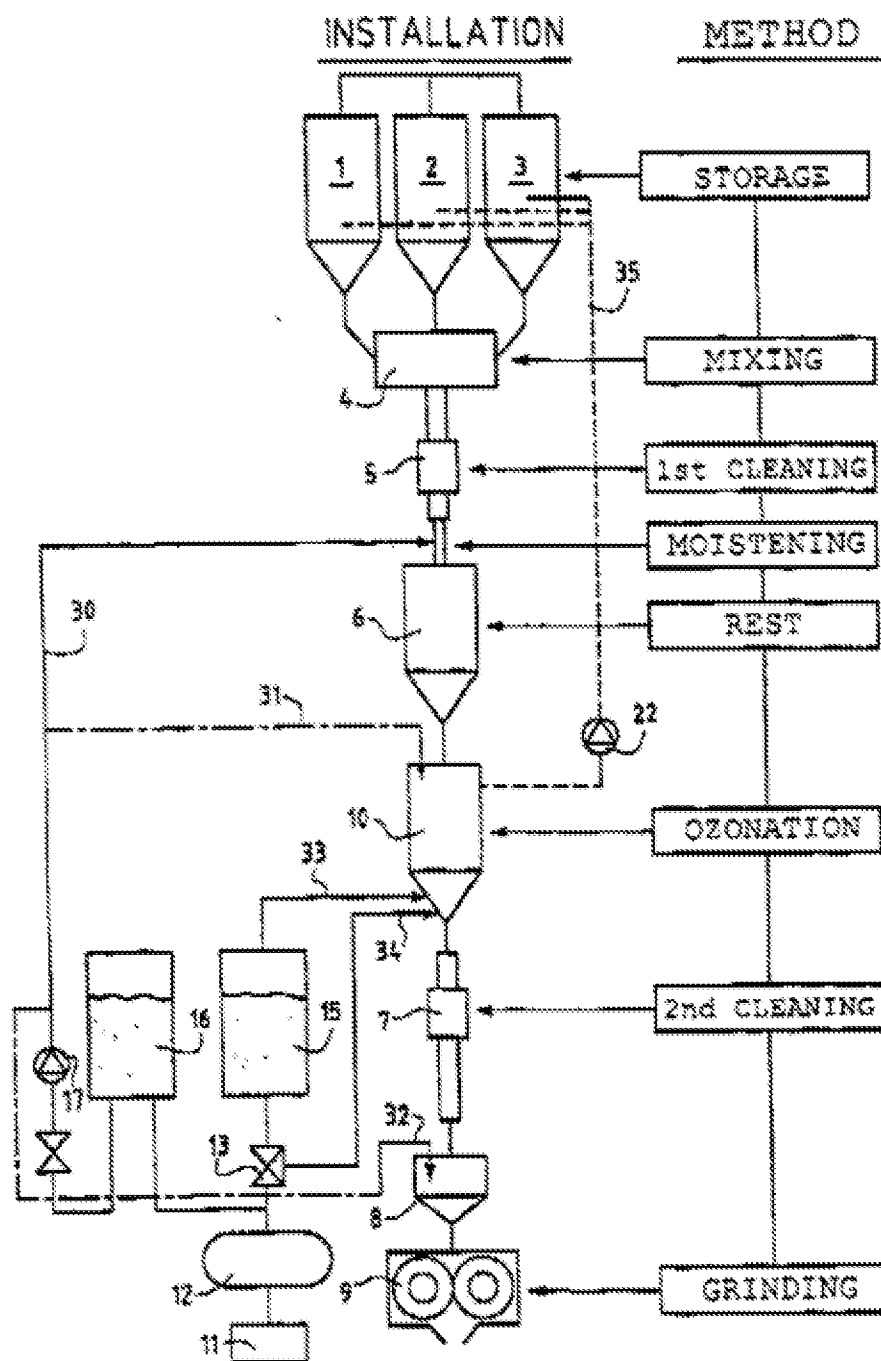


FIG. 2

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however, fails to expressly disclose the plant material comprising broken grains introduced prior to prehumidification, the amount of broken grains being between 0.5 and 20%/(3 and 10%), soft/hard wheat grains, the manufacture of semolinas or pastas which comprises treating hard wheat grains with ozone, the plant material including seeds of a leguminous plant selected from the group consisting of soya, pea, carob, guar, colza, cabbage and flax, water added to the plant material in the form of a mist consisting of fine droplets produced by spraying the water under pressure applying ozone at 600-800 mbar pressure, the parameters of the process for the treatment of soft wheat grains are chosen in such a way that, after the grain grinding step, the viscosity of the resulting flour is increased by between 10 and 50%, relative to a flour derived from untreated grains, the P/L ratio of the flour is greater than 2.5/(3.5), and the rest period is between 36 and 48 hours.

Regarding the types and pieces of grain, it is noted that they are all similar comprising plant cells, fiber, protein, oil, etc. and grains are typically broken during handling. Therefore, it would have been obvious to a person having ordinary skill in the art at the time Applicant's invention was made to use the same ozone treating process to treat the above plant based products. See Abstract and col.6, ll. 9-35 of McCabe ('477) where soya, wheat, grains, etc. are known to be treated by ozone.

Regarding the above properties of the above produced flour product, it would have been obvious to a person having ordinary skill in the art that the product produced would have the above properties since the raw material and process are the same.

Regarding the application of liquid by spraying it would have been obvious that when the water is applied with gaseous ozone a spray would be created or it would have been obvious to apply the liquid by spraying as this is a well known method for evenly distributing liquid to grains.

Regarding the above rest time, it is noted that Applicant has not disclosed any criticality about a maximum rest time but rather a minimum rest time, therefore, letting the wheat rest for one additional minute or more would clearly result in substantially the same if not better results by giving the grain more time to prepare for grinding. Furthermore, the amount and pressure of ozone added are clearly variables within the routine skills of a person having ordinary skill in the art and therefore it would have been obvious to make such adjustments based on the amount of grain to be processed, size of equipment used and efficiency requirements.

3. Claims 4-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yvin et al. (WO 01/43556) with evidence by Yvin et al. (US 6,915,969) in view of McCabe, Jr. (US 4,549,477) and Monsalve-Gonzalez et al. (US 2003/0104103).

Yvin ('969) and McCabe ('477) teach the method discussed above, however, fail to expressly disclose a pH modifier such as citric acid, acetic acid or any other food-grade weak acid added to the water providing a pH of between 3 and 6.

However, Monsalve-Gonzalez ('103) teaches using citric acid to treat wheat at a pH from 4 to 6 for the purpose of reducing the amount of ozone required (*See para. 27 and Abstract.*).

Therefore, it would have been obvious to a person having ordinary skill in the art to use the above acid as taught by Monsalve-Gonzalez ('103) in Yvin ('969) in order to reduce the amount of ozone required.

4. Claims 7-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yvin et al. (WO 01/43556) with evidence by Yvin et al. (US 6,915,969) in view of McCabe, Jr. (US 4,549,477) and De Sollano et al. (US 2,930,699).

Yvin ('969) and McCabe ('477) teach the method discussed above, however, fail to expressly disclose a pH modifier such as food-grade sodium hydroxide, sodium carbonate, sodium bicarbonate or any other food-grade basic product added to the water providing a pH of between 8 and 12.

However, De Sollano ('699) teaches processing wheat with a strong alkali such as sodium hydroxide at a pH of about 11.5 or higher (*See col. 2, ll. 27-40 and col. 7, ll. 36-50.*) for the purpose of reacting with the wheat prior to grinding to make a finely textured flour (*See col. 2, ll. 27-40 and col. 7, ll. 36-50.*).

Therefore, it would have been obvious to a person having ordinary skill in the art to use a strong alkali such as sodium hydroxide as taught by De Sollano ('699) in Yvin ('969) in order to provide a finely textured flour.

### **Conclusion**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brent T. O'Hern whose telephone number is (571)272-0496. The examiner can normally be reached on Monday-Thursday, 9:00-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on (571) 272-1478. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Brent T O'Hern/  
Examiner, Art Unit 1794  
June 11, 2008

/Elizabeth M. Cole/  
Primary Examiner, Art Unit 1794